

TRILL: ARP/ND Optimization

draft-yizhou-trill-arp-optimization-00

Yizhou Li

Donald Eastlake

Linda Dunbar

Radia Perlman

Igor Gashinsky

Overview

- “ Split from draft-ietf-trill-directory-assist-mechanisms to decouple the ARP/ND optimization with the exact directory service mechanisms
- “ Document describes how ARP/ND optimizations work in trill campus
- “ Basic goals: reduce unnecessary ARP/ND flooding

Basic Idea

- “ Learn local IP/MAC mappings from ARP messages and distribute it with Interface Addresses (IA) APPsub-TLV using ESADI or directory service mechanism
- “ If a host’s triplet of {IP address, MAC address, ingress nickname} was known by an ingress RB, the ingress RB can handle non-gratuitous ARP requests by:
 - . Response with the best local knowledge
 - . Unicast to the destination it believes in for authoritative reply
 - . Rate limit such request for the same target
 - . (re-)pull info from directory servers
 - . Flood as usual
- “ Same concept for RARP
- “ Some details were provided in the document on handling gratuitous ARP, target-not-known ARP/ND request, SAND etc.

Next step

- “ Comments are welcome
- “ Text mostly were taken from previous WG draft
- “ Milestone item
- “ Ask call for adoption